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Common Errors in Tuberculosis (TB) Management

Between 1993 and 1999, the number of newly diagnosed cases of TB declined 37% in San Diego County from 469 to 297 cases. While this is excellent news, declining numbers mean that healthcare providers may become less familiar with the medical management of patients with TB disease or infection. The following are common errors in TB management which have been recognized locally and nationally. Should you have any questions about these or other recommendations please let us know. More information about TB is available on our County website or the Centers for Disease Control and Prevention (CDC) website:

County Website: *http /:/www.co.san diego.ca.us/cnty/cntydepts/health/services/tb/index.htm*
CDC Website: *http://www.cdc.gov/nchstp/tb/pubs/mmwrhtml/maj-guide.htm*

✗ Inadequate initial regimen for patients with active TB

To reduce the risk of drug resistance [in regions where isoniazid (INH) resistance is 4% or greater] the Centers for Disease Control and Prevention recommends an initial regimen of **four** anti-tuberculosis medications for patients with suspected or verified active TB. The INH resistance rate in San Diego County in 1999 was 12%. If active TB is verified, the four-drug regimen should be modified only after drug susceptibility results have been received and reviewed. Four drugs may also be used in pediatric populations, although consultation should be sought by practitioners unfamiliar with treating active TB in children.

✗ Initiation of treatment for latent TB infection before active disease is ruled out

The one (or two) drug regimens recommended for the treatment of latent TB infection (positive TB skin test, no active disease) can lead to acquired drug resistance if used for persons with active TB disease. Therefore, persons should not start treatment for inactive, or latent TB infection, until active disease is ruled out. A chest X-ray should always be performed as part of the work-up for latent TB infection, even in the absence of respiratory symptoms. Because “inactive” or “old, fibrotic” appearing lesions can harbor active TB bacilli, sputums should be collected whenever TB is considered a diagnostic possibility. A history and physical exam should be conducted looking for extra-pulmonary sites. Cervical lymph nodes examination should always be performed. (Cervical lymph node TB was diagnosed in 13 children and 27 adults in San Diego County in 1999). All test results should be reviewed prior to starting preventive treatment. If AFB smears and cultures are sent, await culture results prior to initiating presumptive treatment for latent TB infection.

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Common Errors in Tuberculosis (TB) Management *(continued)*

✗ Failure to promptly report active TB

Under California law, TB must be reported to the health department within one day of suspicion or verification of active TB disease. Suspicion is present when TB is strongly considered as part of the differential diagnosis. Examples of patients who should be reported based on suspicion include those who have positive AFB smears (awaiting culture), those started presumptively on TB drugs for active disease, and those told to stay home because of suspected infectiousness. Do not assume others involved in a patient's care have or will report appropriately. It is the obligation of each health provider with knowledge of a reportable patient to ensure that health department notification has occurred. Reporting is important for tracking of epidemiologic trends, as well as to ensure that comprehensive case management and education services are available for TB patients, their families, and community contacts. To report a case or to discuss reporting requirements call (619) 692-8610.

✗ Incomplete laboratory testing

Whenever specimens (sputum, CSF, tissue, etc.) are sent to a laboratory for AFB testing always order AFB smears, AFB cultures, and drug susceptibility testing. Do not assume that laboratories will automatically perform these three essential tests. In most laboratories, if it is not ordered on the lab slip it won't be performed. Smears are essential for evaluating infectiousness, cultures are needed for mycobacterial identification (even when PCR-type tests are ordered) and for drug susceptibility studies. Drug susceptibility tests are essential for guiding therapy. Remember to order these tests on pathology tissue specimens whenever there is suspicion of TB.

✗ Failure to treat high-risk patients for latent TB infection

The CDC has issued new guidelines for the treatment of latent TB infection and a future Bulletin will highlight this area of TB management. The new guidelines are available at *http://www.cdc.gov/nchstp/tb*. Two groups of high-risk individuals that require special attention, based on their heightened risk of progression from latent infection to active disease and the potential for transmission to others, are individuals diagnosed with **HIV-infection** and patients undergoing **renal dialysis for end-stage renal disease.** These individuals should be evaluated for TB infection by Mantoux method tuberculin skin-testing. Those with evidence of TB infection should be fully evaluated and, after active disease is excluded, should be offered treatment for latent TB infection. In 1999, San Diego County dialysis patients were approximately 10 times more likely to have TB disease (100.0 per 100,000) and those HIV-infected were 20 times more likely to have TB disease (214.9 per 100,000) than the general population.

Pediatric Tuberculosis Clinic

Every Tuesday from 8am-12 pm pediatricians from UCSD and Children's Hospital staff a TB clinic at the health department. Working with TB Control personnel, the pediatric clinic was established in July 1999 to provide a central site for TB services for children in San Diego County.

One time consultation or ongoing care is available regardless of a family's ability to pay. Parents are able to receive TB screening and care as well.

To receive more information or to schedule an appointment for a patient, call Diane Bladel at (619) 692-8890.